

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:  
DIANA HAMLET-COX  
INCYTE GENOMICS, INC.  
3160 PORTER DRIVE  
PALO ALTO, CA 94304

## PCT

### NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing  
(day/month/year)

**30 APR 2001**

Applicant's or agent's file reference

PF-0604 PCT

#### IMPORTANT NOTIFICATION

International application No.

International filing date (day/month/year)

Priority date (day/month/year)

PCT/US99/22685

29 September 1999 (29.09.1999)

01 October 1998 (01.10.1998)

Applicant

INCYTE GENOMICS INC.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703)305-3230

Authorized officer

Stephen Tu

Telephone No. 703-308-0196

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PF-0604 PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US99/22685	International filing date (day/month/year) 29 September 1999 (29.09.1999)	Priority date (day/month/year) 01 October 1998 (01.10.1998)
International Patent Classification (IPC) or national classification and IPC IPC(7): C12N 9/00, 11/02, 11/16; C07K1/14, 14/415, ;A61K 35/78 and US Cl.: 435/183, 174; 530/350, 370, 379		
Applicant INCYTE GENOMICS, INC.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 27 April 2000 (27.04.2000)	Date of completion of this report 15 April 2001 (15.04.2001)
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230	Authorized officer Stephen Tu Telephone No. 703-308-0196

Form PCT/IPEA/409 (cover sheet)(July 1998)

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/22685

**I. Basis of the report****1. With regard to the elements of the international application: \***

- ☒ the international application as originally filed.
- ☒ the description:  
pages 1-64 \_\_\_\_\_ as originally filed  
pages NONE \_\_\_\_\_, filed with the demand  
pages NONE \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☒ the claims:  
pages 65 and 66 \_\_\_\_\_, as originally filed  
pages NONE \_\_\_\_\_, as amended (together with any statement) under Article 19  
pages NONE \_\_\_\_\_, filed with the demand  
pages NONE \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☒ the drawings:  
pages 1-15 \_\_\_\_\_, as originally filed  
pages NONE \_\_\_\_\_, filed with the demand  
pages NONE \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☒ the sequence listing part of the description:  
pages 1-21 \_\_\_\_\_, as originally filed  
pages NONE \_\_\_\_\_, filed with the demand  
pages NONE \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

- ☒ contained in the international application in printed form.
- ☒ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

**4. ☐ The amendments have resulted in the cancellation of:**

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/22685

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims <u>7,8, 15, 17-21</u>	YES
	Claims <u>1-6, 9-14, 16</u>	NO
Inventive Step (IS)	Claims <u>17, 18, 20-21</u>	YES
	Claims <u>1-16, 19</u>	NO
Industrial Applicability (IA)	Claims <u>1-21</u>	YES
	Claims <u>NONE</u>	NO

**2. CITATIONS AND EXPLANATIONS (Rule 70.7)**

Claims 1-6, and 9-14 lack novelty under PCT Article 33(2) as being anticipated by HILLIER et al. (AC N90645, and AC AA024660). The references disclose, respectively, the nucleic acid sequence sequences encoding the amino acid sequence of SEQ ID NO: 1 and 8.

Claim 1-6, 9-14, and 16 lacks an inventive step under PCT Article 33(3) as being obvious over HILLIER et al in view of FISHER et al. (WO 96/21671). FISCHER et al. teaches the making of antibodies capable of binding cell surface proteins. HILLIER et al., AC N90645, teaches the nucleic acid sequence of a cell surface protein expressed in fetal heart cells. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of HILLIER et al. with FISCHER et al. in order to generate antibodies specific for polypeptides having SEQ ID NO: 1, and 3-7.

Claims 1-14 lack an inventive step under PCT Article 33(3) as being obvious over HILLIER et al. in view of RYCUS et al. (WO 95/15175). RYCUS et al. teaches a method of detecting and isolating DNA from a cDNA expression library. HILLIER et al., AC N90645, teaches the nucleic acid sequence of a cell surface protein expressed in fetal heart cells. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of HILLIER et al. with RYCUS et al. in order to devise a method to detect and isolate a polynucleotide of interest.

Claims 1-6, 9-15, and 19 lack an inventive step under PCT Article 33(3) as being obvious over HILLIER et al. (AC AA024660). It would have been obvious to one of ordinary skill in the art at the time the invention was made to solubilize the claimed polypeptide in a physiologically compatible buffer, thus, the combination of the peptide with a pharmaceutical carrier would have been obvious.

Claims 1-16 and 19 meet the criteria set out in PCT Article 33(4) for industrial applicability.

Claim 17, 18 and 20-21 meets the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a polynucleotide comprising SEQ ID NO: 8 containing a single nucleotide polymorphism, wherein T at position 428 is replaced with C.

----- NEW CITATIONS -----